Marino\WARE® Product Submittal Data

PRODUCT NAME: **1200S300-54**

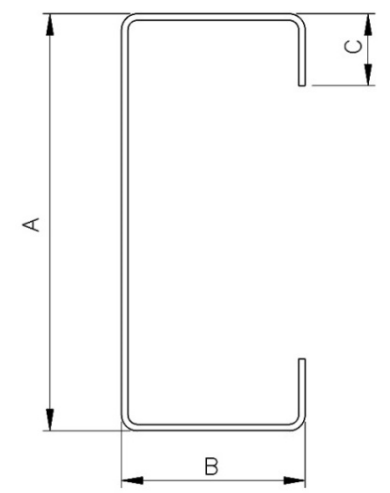
05.40.00 Cold-Formed Metal Framing

MARINO\WARE PART # 120SX16

PROPERTIES:

A. Web (in)	12"	**Yield Strength Fy (KSI)**	50
B. Flange (in)	3"	**Tensile Strength Fu (KSI)**	65
C. Lip (in)	5/8"	**Design Thickness (in)**	0.0566
Mils	54	**Minimum Thickness (in)**	0.0538
Available Finish	G90	**Gauge**	16

STRUCTURAL STUD



SECTION PROPERTIES

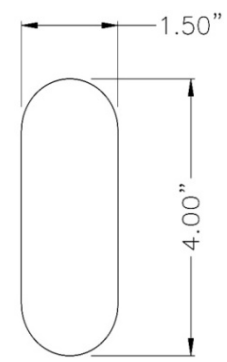
GROSS SECTION PROPERTIES

Cross Sectional Area: **A** (in^2)	1.1082
Weight of Member: (lb/ft)	3.7709
Moment of Inertia: **Ix** (in^4)	22.8419
Section Modulus: **Sx** (in^3)	3.8070
Radius of Gyration: **Rx** (in)	4.540
Gross Moment of Inertia: **Iy** (in^4)	1.2923
Gross Radius of Gyration: **Ry** (in)	4.540

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: **Ixe** (in^4)	22.5642
Section Modulus: **Sxe** (in^3)	2.6917
Allowable Bending Moment: **Ma** (in-k)	80.591
Allowable strong axis shear away from punch: **Vag** (lb)	1377
Allowable strong axis shear at punch: **Vanet** (lb)	1377

Punchout



TORSIONAL SECTION PROPERTIES

St. Venant Torsional Constant: **Jx1000** (in^4)	1.1834
Torsional Warping Constant: **Cw** (in^6)	38.1073
Shear Center to Centroid on Principal X-axis: **Xo** (in)	-1.965
Shear Center to Mid-Plane of the Web: **m** (in)	1.245
Radius of Gyration on the Centroid Principal axis: **Ro** (in)	5.064
Torsional Flexural Constant: **β** $[1-(xo/Ro)^2]$	0.849

CODES & STANDARDS

- AISI S100-12 & ICC ES ESR-4062
- Framing meets ASTM A 1003, A 653, & C 955
- Meets IBC 2015 & 2012, FBC 2014, CSSA code compliant

GREEN INFO

- LEED v3 & LEED v4 credits available
- Contact Technical Services for more information.

This technical information reflects the most current information available and supersedes any and all publications, effective 1/5/2017
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